

Patent Abstracts of Japan

PUBLICATION NUMBER : 05335132  
PUBLICATION DATE : 17-12-93

APPLICATION DATE : 01-06-92  
APPLICATION NUMBER : 04140226

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : KUGIMIYA KOICHI;

INT.CL. : H01F 1/34 C01G 49/00 C04B 35/38

TITLE : OXIDE MAGNETIC BODY MATERIAL

RECEIVED

MAR 01 2004

OFFICE OF PETITIONS

ABSTRACT : PURPOSE: To reduce the magnetic loss in the high-frequency band by a method wherein specific amount of CaO and SiO<sub>2</sub> as the sub-components are added to MnZn base ferrite containing Fe<sub>2</sub>O<sub>3</sub>, ZnO, MnO as the main-components and then specific amount of metallic oxide and specific amount of rare earth metallic oxide are compositely added thereto.

CONSTITUTION: The oxide magnetic body material is a sintered body wherein  $53 \leq \text{Fe}_2\text{O}_3 \leq 57 \text{ mol\%}$ ,  $3 \leq \text{ZnO} \leq 9 \text{ mol\%}$  and the residual mol% of MnO as the main-components as well as  $0.05 \leq \text{CaO} \leq 0.3 \text{ wt.\%}$ ,  $0.005 \leq \text{SiO}_2 \leq 0.05 \text{ wt.\%}$  as the sub-components are to be contained without fail while at least one or more elements selected from respective 0.01-0.2wt.% of Ta<sub>2</sub>O<sub>5</sub>, ZrO<sub>2</sub>, Ga<sub>2</sub>O<sub>3</sub>, GeO<sub>2</sub>, Cr<sub>2</sub>O<sub>3</sub>, SbO<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub>, HfO<sub>2</sub>, MoO<sub>3</sub>, In<sub>2</sub>O<sub>3</sub>, WO<sub>3</sub>, Bi<sub>2</sub>O<sub>3</sub>, SnO<sub>2</sub> and  $0.05 \leq \text{TiO}_2 \leq 0.5 \text{ wt.\%}$  as well as at least one or more elements of the oxide of rare earth metal exceeding 0.005wt.% but not exceeding 0.2wt.% are to be contained. Through these procedures, the title oxide magnetic body material having excellent temperature characteristics can be manufactured at low magnetic loss.

COPYRIGHT: (C)1993,JPO&Japio